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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 16

Application Number: 09/191,047
Filing Date: 11/12/1998
Appellant(s): ZUBEREC ET AL

Brian Hart, Reg. No. 44,421
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 03/08/2002.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement indicating there are no related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1, 3-9, 11-18, 20-35, 37 and 39 do not stand or fall together, but provides no reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

The rejection of claims 1, 3-9, 11-18, 20-35, 37 and 39 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) Claims Appealed

The following ground(s) of rejection are applicable to the appealed claims: The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,774,841	SALAZAR ET AL	6-1998
6,018,711	FRENCH-ST. GEORGE ET AL	1-2000
6,075,534	VANBUSKIRK ET AL	6-2000

(10) Grounds of Rejection

Claims 1, 3, 6, 9, 13, 16-18, 21-28, 31, and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over French St. George et al. (US Patent No. 6,018,711) in view of Salazar et al. (US Patent No. 5,774,841).

Regarding claims 1, 9, 13, 16-18, 21, 22, 23, 25-28, 33, 34, St. George teaches a communication system user interface with animated representation of the time remaining for a user to provide input to a recognizer which implements visual displays of time remaining, allows users the option to reset the recognition time remaining in order to correct recognition errors. St. George teaches an implementation of the system in a security access environment in which a time limit for recognition is ideal, wherein a time limit for access is provided as a means to deter unauthorized entry to the secured system. St. George further implements

speech recognition engine to recognize an utterance...listen for the utterance for a predetermined response time at col. 6, lines 9-67 continuing to col. 9, lines 1-19;

user interface configured ...to display a countdown graphic that changes with lapsing of the response time is taught by St. George at col. 6, lines 9-67 continuing to col. 9, lines 1-19;

the recognition engine becomes dormant or inactive at the expiration of the predetermined response time is taught by St. George at col. 8, lines 40-42

St. George does not teach a user interface configured to play an audible sound indicating recognition of the utterance, emitting an audible sound to indicate the recognition engine is in a dormant state nor a user interface to provide visual and auditory feedback indicating whether the speech recognition engine recognizes the utterance. However, refer to Salazar et al. who teach an adaptive speech recognition command and control apparatus and method which provides audio and visual feedback to the user upon the recognition or none recognition of user input utterances (col. 3, lines 58-67 continuing to col. 4, lines 1-17; col. 7, lines 18-55; and col. 11, lines 4-35)

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the user interface for a speech recognition system of St George to implement providing feedback to the user of a speech recognition system as taught by Salazar et al. because such a modification would ensure the user the recognition system was functioning properly and that the system vocabulary was current.

St. George teach that their system interface is applicable or usable in a plurality of networks, systems, communication devices, terminals and platforms (see col. 6, lines 9-16, and col. 9, lines 3-18).

Neither St. George nor Salazar et al teach the "user interface restarts countdown graphic in the event the speech recognition engine recognizes the utterance." However, it would have

been obvious to modify the user interface system of St. George '711 to implement visual and auditory feedback as taught by Salazar et al, and to further modify the system to allow for the user interface restarting the countdown graphic, because such a modification would continually grant the user the maximum response time for generating an utterance to be recognized, which would improve the usability and flexibility of the system.

Regarding claim 3, "..response time is configurable.." is taught by St. George at col. 7, lines 9-21.

Regarding claims 6, 14, 24, 31, and 39, "...user interface plays sound when the response time has elapsed" is taught by St. George at col. 8, line 67 continuing to col. 9, lines 1-3.

Claims 4-5, 7-8, 11-12, 15, 20, 29-30, 32, 35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over French St. George et al. (US Patent No. 6,018,711) in view of Salazar et al. (US Patent 5,774,841) as applied to claims 1, 9, 18, 23, 27 and 34 above, and further in view of VanBuskirk et al. (US Patent No. 6,075,534).

Regarding claims 4, 11, 20, 29, and 37, neither St. George nor Salazar et al. teach "...interface displays visual elements in a first color..." However, refer to VanBuskirk et al. Who teach a user interface for a speech recognition system which implements a minibar graphic that is used to provide status information of the functions of the recognition system via changing of the color of the graphic or a moving ribbon (refer to Figures 1A-7 and col. 4, lines 12-33).

Therefore, it would have been obvious to one of ordinary skill to modify the speech recognition user interface of St. George to implement the changing of the graphic color of

VanBuskirk et al., for the purpose of providing the user with more options in how they can monitor utterance input response time.

Regarding claims 5, 12, 30, and 35, "...countdown bar comprises a progress bar.." neither St. George 'nor Salazar et al. teach "...countdown bar comprises a progress bar..." However, refer to VanBuskirk et al. Who teach a user interface for a speech recognition system which implements a minibar graphic that is used to provide status information of the functions of the recognition system via changing of the color of the graphic or a moving ribbon (refer to Figures 1A-7 and col. 4, lines 12-33).

Therefore, it would have been obvious to one of ordinary skill to modify the speech recognition user interface of St. George to implement moving ribbon (applicant's progress bar) of VanBuskirk et al., for the purpose of providing the user with more options in how they can monitor utterance input response time.

Regarding claims 7, 15, and 32, neither St. George nor Salazar et al. teach "...sleep mode...awakened to an active mode upon detection of starter utterance" However, refer to VanBuskirk et al. Who teach a user interface for a speech recognition system which implements a minibar graphic that is used to provide status information of the functions of the recognition system via indicating that the system is in sleep mode and can be awakened by either saying a proper command or by manual means (refer to col. 4, lines 42-51.

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the user interface of St. George to implement the sleep/awaken methods of VanBuskirk et al., for the purpose of ensuring the user's utterance is captured in a hands-busy environment.

Regarding claims 8 neither St. George nor Salazar et al. teach "...sleep mode...awakened to an active mode upon depression of a button". However, refer to VanBuskirk et al. Who teach a user interface for a speech recognition system which implements a minibar graphic that is used to provide status information of the functions of the recognition system via indicating that the system is in sleep mode and can be awakened by either saying a proper command or by manual means (refer to col. 4, lines 42-51.

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the user interface of St. George to implement the sleep/awaken methods of VanBuskirk et al., for the purpose of providing the user with more control over when the system is activated and to safeguard against the system responding to extraneous noise.

(11) Response to Argument

Regarding claim 1, Applicant argues that French St. George does not teach "a speech recognition engine to recognize an utterance" and "the speech recognition engine being configured to actively listen for the utterance for a predetermined response time" (at page 5 of the Appeal Brief). The Examiner disagrees, and argues that French St. George discloses a system and method for management of an interface for communication systems and devices using a recognizer having a limited time duration recognition window. At col. 6, lines 41-42, French St. George discloses that the system provides for a speech recognizer to accept and interpret speech input, which reads on "a speech recognition engine to recognize an utterance". At col. 8, lines 12-16, French St. George discloses that the speech recognition window is turned on for a specific recognition window of T=Tw, and a timing signal is initiated at T=0, which is

indicative of the time remaining. Since the time between the listening time and the machine response time is minimal (real-time speech recognition), for a speech recognition window of T=Tw the recognition system processes the speech within the allowed input time, thereby listening for and recognizing a speech utterance within the duration of the window, which reads on "the speech recognition engine being configured to actively listen for the utterance for a predetermined response time"

Applicant also argues that the Examiner's arguments presented in the 12/19/2002 advisory action that the time between the listening time and the machine response time is a minimal and therefore the speech recognition engine can process the speech within the allowed input time, is contrary to the teachings of French St. George (page 5). The Examiner disagrees and argues that at col. 8, lines 28-30, French St. George teaches that if the speech recognizer recognition window has closed at T=Tw, the speech sample is sent for speech recognition and at col. 8, lines 40-42, French St. George also teaches that when T=Tw, the sample is captured and the recognition is closed, i.e. the recognizer is turned off. Thus if the sample is sent for recognition at T=Tw and the recognizer is also turned off at T=Tw, the machine response time for processing and recognizing the utterance is minimal, for the speech recognizer for dictation at the time of invention having real-time capability. Thus, if speech filling up the entire time period from 0 to Tw was recognized in a known duration, such as Tp, the total time of Tw + Tp would read on the broadly claimed "predetermined response time".

Applicant also argues that the teachings of Salazar et al are contrary to the teachings of French St. George (page 7). The Examiner disagrees and argues that the system of French St. George provides for listening for and recognizing a speech utterance within the duration of the

window, as argued above, which reads on "the speech recognition engine being configured to actively listen for the utterance for a predetermined response time". And, once the window has closed and the recognition engine has processed the utterance, the teachings of Salazar would provide auditory feedback to the user to indicate that the utterance has been recognized. Thus, the teachings of Salazar would not be contrary to the teachings of French St. George, and one of ordinary skill would combine Salazar with French St. George which would provide a user controllable time period for receiving and recognizing an utterance, as taught by French St. George, that would alert the user via auditory feedback that the utterance was recognized, as taught by Salazar.

In response to applicant's arguments that Salazar does not teach or suggest "the speech recognition engine being configured to actively listen for the utterance for a predetermined response time" (page 8), the Examiner disagrees and argues that as indicated in the Grounds of Rejection and as argued above, French St. George teachings of listening for and recognizing a speech utterance within the duration of the window, reads on this limitation.

In response to applicant's arguments that the references do not teach or suggest "the speech recognition engine being configured to enter a dormant state if the utterance is not recognized within the predetermined amount of time" (page 8), the Examiner disagrees and argues that at col. 8, lines 59-63, French St. George suggest that the system can be implemented in a system for receiving and recognizing security information within a time limit, which would make the system unavailable if the utterance was not recognized within the time limit.

In the arguments regarding Claim 1, applicant refers to page 5 of the Office Action which indicates that French St. George and Salazar do not teach that the sleep mode is awakened to an

active mode upon detection of a starter utterance, and argues that the Office Action does not point out or provide any other evidence as to how the references teach or suggest the claimed features (page 8). The Examiner argues that the limitation and portion of the Office Action to which Applicant refers is actually the 103(a) rejection of dependent claims 7, 15, and 32 that were rejected under a combination of French St. George, Salazar and VanBuskirk, and the limitation is not recited in Claim 1.

However, in response to applicant's argument that the Action does not provide evidence of how the references teach the claimed features, the Examiner argues that in referring to the actual claims that recite the limitation of " a sleep mode is awakened to an active mode upon detection of a starter utterance", the combination of French St. George and Salazar teach everything as claimed in claims 1, 9, and 27. However, they fail to specifically teach that the sleep mode is awakened to an active mode upon detection of a starter utterance. In a similar field of endeavor, VanBuskirk teaches a user interface for a speech recognition system which implements a minibar graphic that is used to provide status information of the functions of the recognition system via indicating that the system is in sleep mode and can be awakened by either saying a proper command or by manual means (refer to col. 4, lines 42-51), which reads on " a sleep mode is awakened to an active mode upon detection of a starter utterance".

Thus, a combination of French St. George, Salazar and VanBuskirk would teach or suggest the claimed limitations.

Applicant argues that claim 1 recites the limitation display a countdown graphic that changes with lapsing of the predetermined response time and argues that the Office Action indicates that the limitation is not taught by French St. George or Salazar (page 9). The

Examiner disagrees and argues that the rejection clearly indicates that the recited feature of a user interface configured to display a countdown graphic that changes with lapsing of the predetermined response time is taught or suggested by French St. George. As indicated in the Grounds of Rejection, French St. George discloses at col. 6, lines 59-62 that the animation changes, i.e. shrinks, as the time to talk window of the speech recognizer is opened and closes, at col. 7, lines 2-4 that as the recognition window advances and closes, the animation changes and closes, which reads on "a display a countdown graphic that changes with lapsing of the predetermined response time".

Applicant further argues that it would not be obvious to further modify French St. George in view of Salazar to provide for "restart the countdown graphic in the event the speech recognition engine recognizes the utterance" (page 9), because French St. George and Salazar do not teach or suggest the limitation. The Examiner disagrees and argues that the rationale to modify prior art may be in the references or reasoned from knowledge generally available to one of ordinary skill in the art (MPEP 2144). Thus, although neither French St. George neither Salazar specifically teach "restart the countdown graphic in the event the speech recognition engine recognizes the utterance", it would have been obvious to one of ordinary skill at the time of the invention to modify the user interface system of French St. George to implement visual and auditory feedback as taught by Salazar et al, and to further modify the system to allow for the user interface restarting the countdown graphic, because such a modification would continually grant the user the maximum response time for generating an utterance to be recognized, which would improve the usability and flexibility of the system.

Regarding claim 9, applicant argues that for the reasons discussed in reference to Claim 1, the references of record, singly or in combination do not teach or suggest the various features of claim 9 (page 11). The Examiner disagrees and refers to the arguments presented in reference to claim 1 above.

Regarding claim 18, applicant argues that for the reasons discussed in reference to Claim 1, the references of record, singly or in combination do not teach or suggest the various features of claim 18 (page 11). The Examiner disagrees and refers to the arguments presented in reference to claim 1 above.

Regarding claim 23, applicant argues that for the reasons discussed in reference to Claim 1, the references of record, singly or in combination do not teach or suggest the various features of claim 23 (page 13). The Examiner disagrees and refers to the arguments presented in reference to claim 1 above.

Regarding claim 27, applicant argues that for the reasons discussed in reference to Claim 1, the references of record, singly or in combination do not teach or suggest the various features of claim 27 (page 13). The Examiner disagrees and refers to the arguments presented in reference to claim 1 above.

Regarding claim 33, applicant argues that for the reasons discussed in reference to Claim 1, the references of record, singly or in combination do not teach or suggest the various features of claim 33 (page 14). The Examiner disagrees and refers to the arguments presented in reference to claim 1 above.

Regarding claim 34, applicant argues that for the reasons discussed in reference to Claim 1, the references of record, singly or in combination do not teach or suggest the various features

of claim 34 (page 15). The Examiner disagrees and refers to the arguments presented in reference to claim 1 above.

Regarding claim 34, applicant argues that the references do not teach playing a first sound when an audible utterance is recognized (page 15). The Examiner disagrees and argues that Salazar teaches at col. 3, lines 58-67 and col. 4, lines 1-17 that the system provides that a tone is sounded following the recognition of a word, which reads on "playing a first sound when an audible utterance is recognized".

Applicant also argues that the references do not teach emitting a second sound to indicate that the speech recognition system has entered the dormant state (page 15). The Examiner disagrees and argues that French St. George specifically teaches that at the end of the speech recognition window, recognition is closed and the animation ceases (col. 8, lines 40-42), which means that the no more time is available. French St. George further teaches that the animation can be auditory, such as a pattern of sound representative of available time (col. 8, line 64 continuing col. 9, line 3). Thus St. George implemented with an auditory animation would provide for an auditory sound representing the amount of available time (ranging from the maximum time available to no time available), wherein an auditory sound of no available time would occur at the end of the speech recognition window at which time the recognizer is closed or turned off (col. 8, lines 40-42), which reads on "emitting a second sound to indicate that the speech recognition system has entered the dormant state".

Regarding claims 4, 11, 20, 29 and 37, applicant disagrees with the conclusion of obviousness and argues that one of ordinary skill in the art at the time of the invention would not have made the proposed modification to French St. George, in view Salazar and further in view

of VanBuskirk (page 16). The Examiner disagrees and argues that French St. George and Salazar teach everything as claimed in claims 1, 9, 18, 27, and 33, as argued above. However, French St. George and Salazar do not specifically disclose that the feedback for notification of the recognition of the utterance is performed via changing of colors of visual elements. In a similar field of endeavor, VanBuskirk teaches a user interface for a speech recognition system which implements a minibar graphic that is used to provide status information of the functions of the recognition system via changing of the color of the graphic or a moving ribbon (refer to Figures 1A-7 and col. 4, lines 12-33).

Therefore, the Examiner contends that it would have been obvious to one of ordinary skill at the time of the invention to modify the recognition notification method of the speech recognition system of French St. George and Salazar, to provide for visual notification of recognized utterances via changing colors of a visual display element, as taught by VanBuskirk, for the purpose of providing a graphical user interface for a speech recognizer which utilizes a minimum of screen space, as also suggested by VanBuskirk, at col. 1, lines 9-11.

Regarding claims 5, 12, 30, and 35, applicant argues that for the reasons discussed with respect to claims 4, 11, 20, 29, and 37, a person of ordinary skill would not have modified French St. George in view of Salazar an further in view of VanBuskirk (page 17). The Examiner disagrees and argues that French St. George and Salazar teach everything as claimed in claims 1, 9, 18, 27, and 33, as argued above. However, French St. George and Salazar do not specifically disclose that the countdown graphic comprises a progress bar. In a similar field of endeavor, VanBuskirk teaches a user interface for a speech recognition system which implements a minibar graphic that is used to provide status information of the functions of the recognition system via a

moving ribbon (refer to Figures 1A-7 and col. 4, lines 12-33), which reads on the "progress bar that shortens as the response time diminishes".

Therefore, the Examiner contends that it would have been obvious to one of ordinary skill at the time of the invention to modify the animated representation of the time remaining of the recognition window of the speech recognition system of French St. George and Salazar, to provide for visual notification of time remaining via a moving ribbon or progress bar that shortens as time diminishes, as taught by VanBuskirk, for the purpose of providing a graphical user interface for a speech recognizer which utilizes a minimum of screen space, as also suggested by VanBuskirk, at col. 1, lines 9-11.

Regarding claims 7, 15, and 32, applicant argues that for the respective reasons in reference to claims 1, 9 and 27, the cited combination does not teach or suggest the features of claims 7, 15, and 32 (page 18). The Examiner disagrees and refers to the arguments presented in reference to claims 1, 9, and 27 above.

Regarding claim 8, applicant argues that for the respective reasons in reference to claim 1, the cited combination does not teach or suggest the features of claim 9 (page 19). The Examiner disagrees and refers to the arguments presented in reference to claim 1 above.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Angela A. Armstrong, Examiner

Angela A. Armstrong

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PRIMARY EXAMINER

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May 18, 2002

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